

REMARKS

This application has been reviewed in light of the Office Action dated May 20, 2003. Claims 1-10, 13-26, 29-34 and 36 are pending in this application. Claim 3, which is an independent claim, has been amended to define still more clearly what Applicants regard as their invention, in terms that distinguish over the art of record. Claims 1, 3, and 4 are in independent form. Favorable reconsideration is requested.

First, Applicants gratefully acknowledge the allowance of Claims 1, 2, 4, 6, 8, 10, 14, 16, 18, 20, 22, 24, 26, 30, 32, and 34.

An Information Disclosure Statement and a corresponding Form PTO-1449 was filed on January 3, 2002, as evidenced by the returned receipt postcard bearing the stamp of the Patent and Trademark Office, a copy of which is attached hereto. Applicants respectfully request the Examiner to return an initialed copy of the Form PTO-1449, indicating the reference cited therein was considered.

Claims 3, 5, 7, 9, 13, 15, 17, 35 and 36 were rejected under 35 U.S.C. § 102(b) as being anticipated by *HDTV Single-Chip CCD Color TV* by Tanaka et al. (hereinafter "Tanaka et al."), and Claims 19, 21, 23, 25, 29, 31 and 33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanaka et al. in view of U.S. Patent No. 5,907,355 (Kotaki). Applicants respectfully traverse these rejections.

The aspect of the present invention set forth in Claim 3 is an image pickup device comprising a color filter array that includes color filters arranged in horizontal and vertical directions, a plurality of pixels including photoelectric converting elements arranged in the horizontal and vertical directions, respectively corresponding to the color filters, and a plurality of vertical read-out units provided for a plurality of pixels arranged in the vertical direction, the plurality of vertical read-out units being arranged to read out signals from the plurality of pixels arranged in the vertical direction. The image pickup

device also includes a horizontal read-out unit arranged to read out sequentially the signals from the plurality of vertical read-out units in the horizontal direction, an output unit arranged to output sequentially the signals from the horizontal read-out unit, and a control unit arranged to divide the plurality of pixels on a unit basis of a predetermined number of lines, which includes a plurality of first lines alternating with a plurality of second lines, and arranged to add the signals of pixels of adjacent first lines and second lines to generate a color difference signal from every unit, wherein the control unit generates sequentially different color difference signals from the units adjacent to each other so that the color difference signals generated from adjacent units are different, and the color difference signals generated from every other unit are equal.

One important feature of Claim 3 is that the control unit is arranged to divide the plurality of pixels on a unit basis of a predetermined number of lines, which includes a plurality of first lines alternating with a plurality of second lines, and arranged to add the signals of pixels of adjacent first lines and second lines to generate a color difference signal from every unit, wherein the control unit generates sequentially different color difference signals from the units adjacent to each other so that the color difference signals generated from adjacent units are different, and the color difference signals generated from every other unit are equal. Figures 17-19 and 21-24 provide support for this feature. (It is to be understood, of course, that the scope of Claim 3 is not limited to the details of these embodiments.)

Tanaka et al., as understood by Applicants, relates to a high-definition single-chip CCD color camera. The Office Action at page 3 states that Tanaka et al. discloses “a control unit that is arranged to divide the plurality of pixels on a unit basis of a predetermined number of lines” and that Figure 3 of Tanaka et al. provides support for this assertion. Applicants submit that Figure 3 of Tanaka et al. shows, and the description at

page 480, left column, discusses, a configuration of a color filter composed of four elements (Mg, Ye, G, and Cy) on four lines. A color difference signal is generated from the four lines in each field. In the first field, only the color difference signal R-Y is generated sequentially from the respective four lines adjacent to each other (see, e.g., section "(a)" of Field - 1 of Figure 3). In the second field interlaced with the first field, only the color difference signal B-Y is generated sequentially from the respective four lines adjacent to each other (see, e.g., section "(b)" of Field - 2 of Figure 3). Applicants submit, however, that nothing has been found in Figure 3 of Tanaka et al., or in any other section or figure of Tanaka et al., that would teach or suggest generating sequentially different color difference signals R-Y and B-Y from the respective four lines adjacent to each other. In other words, Applicants submit that nothing has been found in Tanaka et al. that would teach or suggest a control unit that generates sequentially different color difference signals from the units adjacent to each other so that the color difference signals generated from the adjacent units are different, and the color difference signals generated from every other unit are equal, as recited in Claim 3.

Accordingly, Applicants submit that, at least for this reason, Claim 3 is patentable over Tanaka et al.

A review of the other art of record including Kotaki has failed to reveal anything that, in Applicants' opinion, would remedy the deficiencies of the art discussed above, as applied against the independent claims herein. Therefore, those claims are respectfully submitted to be patentable over the art of record.

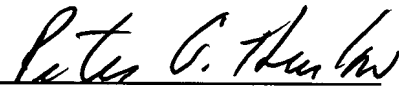
The other rejected claims in this application depend from Claim 3 discussed above, and, therefore, are submitted to be patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, individual reconsideration of the patentability of each claim on its own merits is

respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,



Attorney for Applicants

Registration No. 47,138

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

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